AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A driver of an electric compressor for driving a dc brush-less motor, said driver comprising:

a power supply; and

an inverter coupled to said power supply,

wherein said driver operates such that an ac current having a sine-waveform is output from said inverter to the dc brush-less motor,

wherein said driver drives a compressing mechanism that sucks fluid, and then compresses and discharges the fluid, ~~and~~

wherein said driver controls the dc brush-less motor such that, during a start-up mode of driving the dc brush-less motor, a ~~current-phase~~ phase of the current of a winding of the dc brush-less motor is advanced with respect to a phase of the induction voltage ~~an induction voltage-phase~~ generated in the winding ~~at a start of driving the compressor~~ in order to obtain sufficient torque to start driving the dc brush-less motor, ~~and~~

wherein said driver controls the dc brush-less motor such that, immediately after the start-up mode is complete, ~~then~~ the advancement of the ~~current-phase~~ phase of the current of the winding with respect to the phase of the induction voltage generated in the winding is reduced, and

wherein the dc brush-less motor is an interior permanent magnet (IPM) motor.

2. (Currently Amended) The driver of claim 1,

wherein ~~said driver controls the dc brush-less motor such that the advancement of the current-phase is reduced at one of~~ the start-up mode of driving the dc brush-less motor is determined to be complete when a ~~given~~ first predetermined length of time passes after the

start of driving the dc brush-less motor, or ~~and~~ when the dc brush-less motor reaches a ~~given~~ first predetermined amount of revolutions per minute (rpm).

3. (Currently Amended) The driver of claim 1,

wherein said driver draws instantaneous maximum torque of the dc brush-less motor depending on the advancement of the ~~current phase~~ phase of the current of the winding with respect to the phase of the induction voltage generated in the winding.

4. (Currently Amended) The driver of claim 1,

wherein the dc brush-less motor is a sensor-less dc brush-less motor which includes a stator winding and a rotor magnet, and

wherein said driver ~~which~~ determines a position of the rotor magnet by detecting a current flowing through the stator winding and by calculating the induction voltage based on the detected current.

5. (Previously Presented) The driver of claim 4, wherein said driver utilizes three-phase modulation.

6-10. (Canceled)

11. (Currently Amended) The driver of claim 1,

wherein ~~said driver controls the dc brush-less motor such that the advancement of the current phase is reduced~~ the start-up mode of driving the dc brush-less motor is determined to

be complete when a ~~given~~ first predetermined length of time passes after the start of driving the dc brush-less motor.

12. (Canceled)

13. (New) The driver of claim 1,

wherein, during the start-up mode, the phase of the current of the winding is advanced by approximately 20° with respect to the phase of the induction voltage generated in the winding.

14. (New) The driver of claim 2,

wherein the first predetermined length of time is approximately six seconds, and

wherein the first predetermined amount of revolutions per minute (rpm) is approximately 900 rpm.

15. (New) The driver of claim 2,

wherein the dc brush-less motor enters a low speed mode after the completion of the start-up mode,

wherein said driver controls the dc brush-less motor such that the advancement of the phase of the current of the winding with respect to the phase of the voltage generated in the winding is increased after the low speed mode is complete,

wherein the low speed mode of driving the dc brush-less motor is determined to be complete when the dc brush-less motor reaches a second predetermined amount of revolutions per minute (rpm), and

wherein the second predetermined amount of revolutions per minute is higher than the first predetermined amount of revolutions per minute.

16. (New) The driver of claim 15,

wherein the second predetermined amount of revolutions per minute (rpm) is approximately 1200 rpm.

17. (New) The driver of claim 15,

wherein, during the low speed mode, the phase of the current of the winding is advanced by approximately 5° with respect to the phase of the induction voltage generated in the winding.

18. (New) The driver of claim 15,

wherein the dc brush-less motor enters a medium speed mode after the completion of the low speed mode,

wherein said driver controls the dc brush-less motor such that the advancement of the phase of the current of the winding with respect to the phase of the voltage generated in the winding is increased after the medium speed mode is complete,

wherein the medium speed mode of driving the dc brush-less motor is determined to be complete when the dc brush-less motor reaches a third predetermined amount of revolutions per minute (rpm), and

wherein the third predetermined amount of revolutions per minute is higher than the second predetermined amount of revolutions per minute.

19. (New) The driver of claim 18,

wherein the third predetermined amount of revolutions per minute (rpm) is approximately 7200 rpm.

20. (New) The driver of claim 18,

wherein, during the medium speed mode, the phase of the current of the winding is advanced by approximately 10° with respect to the phase of the induction voltage generated in the winding.

21. (New) The driver of claim 1,

wherein said driver controls the dc brush-less motor such that the advancement of the phase of the current is reduced when a given length of time passes.